

TRINITRON® COLOR TV RECEIVER

KV-1546R/1746R/1946R



OPERATING INSTRUCTIONS

Congratulations on choosing this advanced Sony Color TV Receiver. For best results, please read this manual thoroughly before operating the set, and keep these instructions handy for future reference.

FEATURES

- Remote Commander operation of power on/off, sound volume, channel selection and picture control adjustment.
- Easy preset tuning for adding UHF channels or for arranging active channels in your desired order.
- Built-in automatic fine tuning and color circuits.
- ECONOQUICK, energy-saving quick start picture system.

OWNER'S RECORD

The model and serial numbers are located at the rear. Record these numbers in the space provided below. Refer to them whenever you call upon your Sony dealer regarding this product.

Model No. _____ Serial No. _____

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WARNING

To prevent fire or shock hazard, do not expose the set to rain or moisture.

Dangerously high voltages are present inside the set. Do not open the cabinet. Refer servicing to qualified personnel only.

PRECAUTIONS

USE

- Operate only on 120 V ac.
- This set is equipped with a polarized AC power cord plug (one blade of the plug is wider than the other), which will fit into the power outlet only one way. Should you be unable to insert the plug fully into the outlet, try reversing the plug. If the plug still fails to fit, contact your dealer for assistance. Do not defeat the safety purpose of the polarized plug.
- Should any liquid or solid object fall into the cabinet, unplug the set and have it checked by qualified personnel before operating it any further.
- Unplug the set from the wall outlet if it is not to be used for several days.
- To disconnect the cord, pull it out by the plug. Never pull the cord itself.

INSTALLATION

- Allow adequate air circulation to prevent internal heat build-up. Do not place the set on surfaces (rugs, blankets, etc.) or near materials (curtains, draperies) that may block the ventilation holes.
- Do not install the set in a location near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.

MAINTENANCE

- Save the original shipping carton and packing material; they will come in handy if you ever have to ship your set. For maximum protection, repack your set as it was originally packed at the factory.
- To keep the set looking brand-new, periodically clean it with a soft cloth. Stubborn stains may be removed with a cloth lightly dampened with a mild detergent solution. Never use strong solvents such as thinner or benzine, or abrasive cleansers since these will damage the cabinet. As a safety precaution, unplug the set before cleaning it.

For detailed safety precautions, see the leaflet "IMPORTANT SAFEGUARDS" included with this manual in the vinyl bag.

TRINITRON COLOR SYSTEM

The Sony Color TV employs the unique Trinitron Color System. A product of intensive engineering research, the Trinitron Color System provides a brighter and sharper picture, with simplified and more accurate service adjustments.

One-gun, three-beam electron focusing structure, and a single large electron lens for a crisp picture.

Aperture Grille color selection system for a brighter, sharper picture, less prone to moiré patterns (ripple or wave effect).

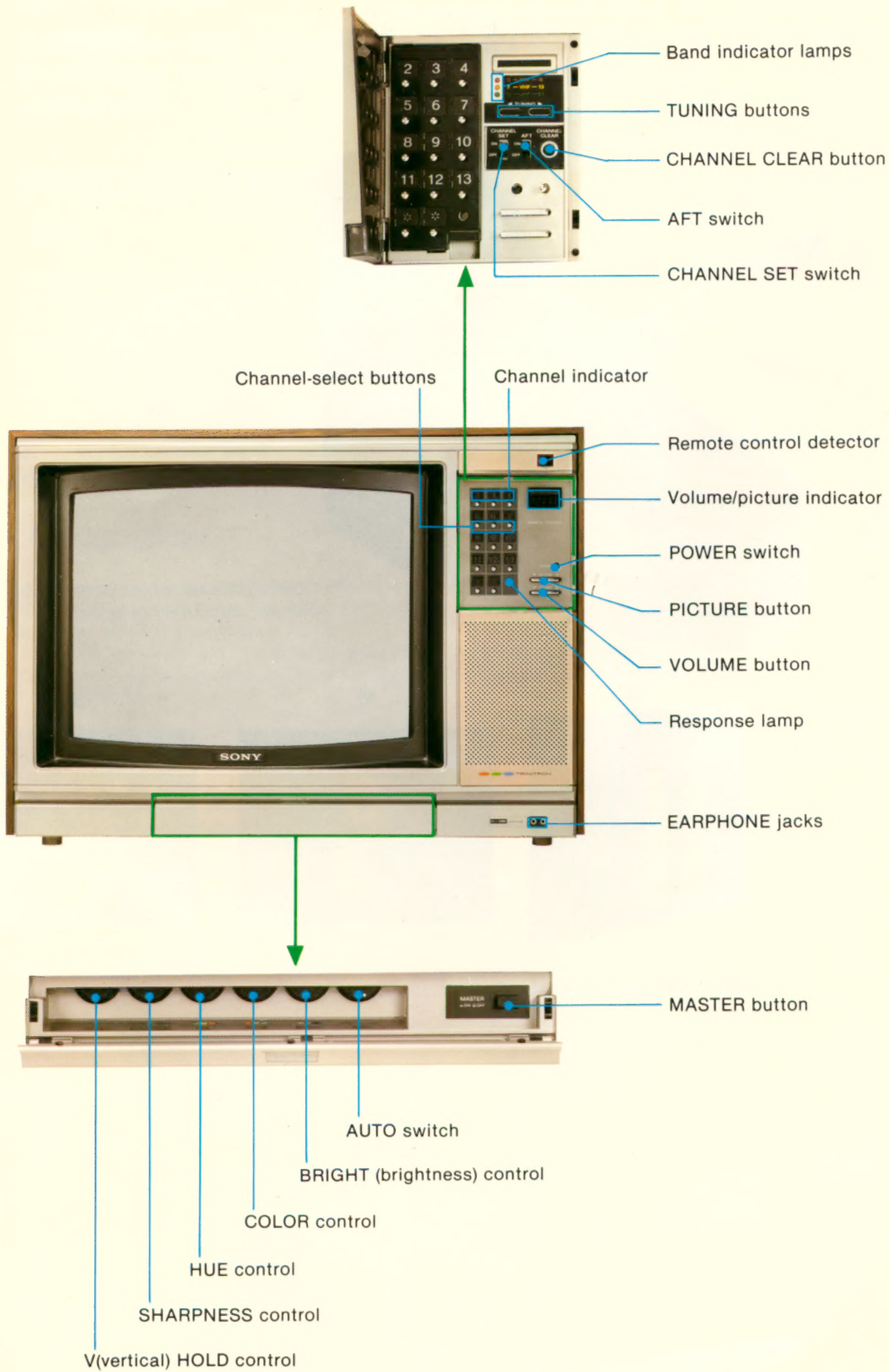
Guard Grille for a high contrast, brighter picture, without color spills.

Cylindrical screen reduces distortion as viewed from the sides (A), sharpens the picture corners (B), and diminishes room reflections (C).

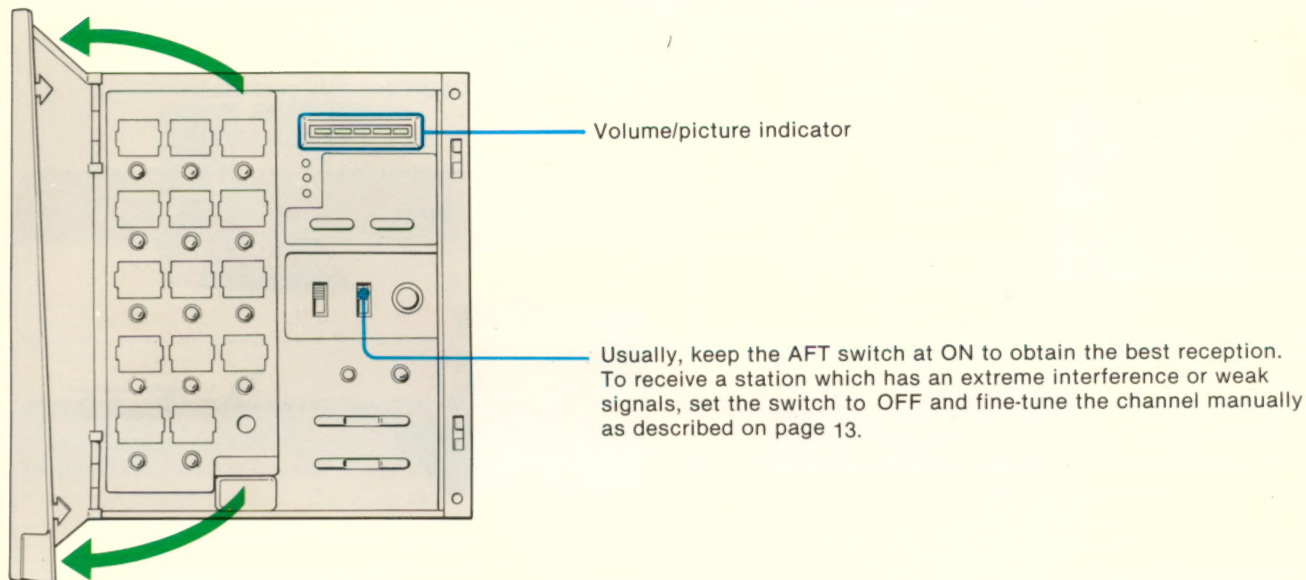
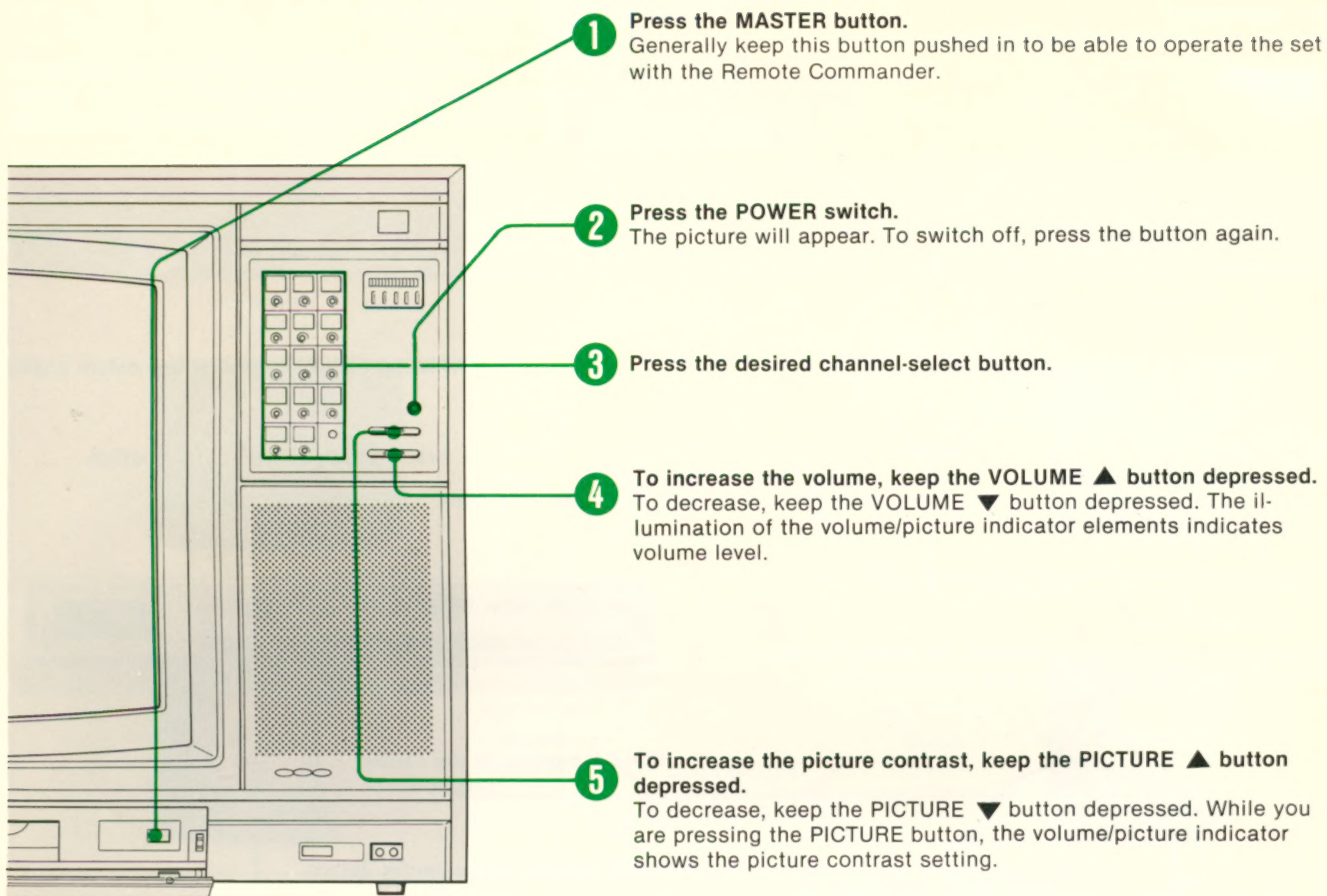


A and B are simulated pictures.

LOCATION OF CONTROLS



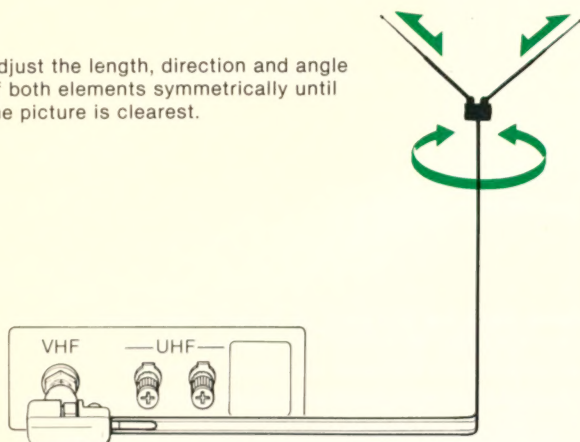
NORMAL TV OPERATION



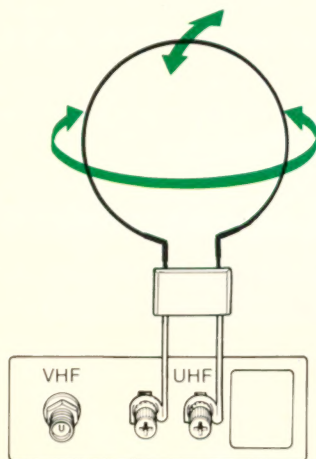
Indoor antenna adjustment

For VHF reception, use the VHF telescopic dipole antenna.

Adjust the length, direction and angle of both elements symmetrically until the picture is clearest.



For UHF reception, raise the UHF loop antenna, and swing the loop back and forth and/or sideways until the picture is clearest.



Note

If the satisfactory result cannot be obtained with the built-in indoor antennas, install external antennas referring to page 15.

Earphone jacks

For private listening, insert the earphone plug into the [•] receptacle. This disconnects the loudspeaker. The use of the [••] receptacle permits the earphone and the loudspeaker to be used simultaneously. TV sound may be recorded by connecting a tape recorder to the [••] receptacle with a suitable connecting cord. Adjust the TV volume for a normal listening level.

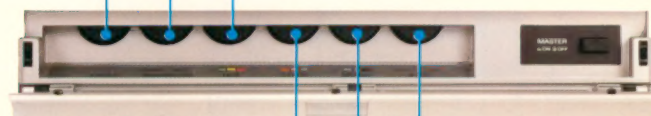
PICTURE ADJUSTMENTS

Satisfactory results will usually be obtained with the controls set at the following positions. If any adjustments are necessary, adjust the required controls as described here according to picture conditions.

V HOLD control: at the position where picture does not roll (probably near the center position)

SHARPNESS control: at the center detent position

HUE control: at the center position



COLOR control: at the center position

BRIGHT control: at the center detent position

AUTO switch: at the ON position
(Color intensity and hue of the picture are adjusted automatically to the factory-preset values, but may be adjusted slightly with the COLOR and HUE controls.)

If the picture rolls vertically



Turn the V HOLD control to the left or right until the picture stabilizes.

Good picture



**Skin tones
not natural**

With the AUTO switch at OFF, the HUE and COLOR controls have a wider adjustment range.



greenish
skin



HUE

good picture



HUE

purplish
skin



too vivid



COLOR

good picture



COLOR

too pale



Too bright or too dark picture

too bright



BRIGHT

good picture



BRIGHT

too dark



Too sharp or too soft picture

too sharp



SHARPNESS

good picture



SHARPNESS

too soft

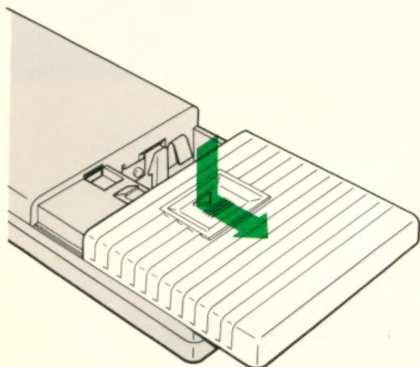


REMOTE CONTROL OPERATION

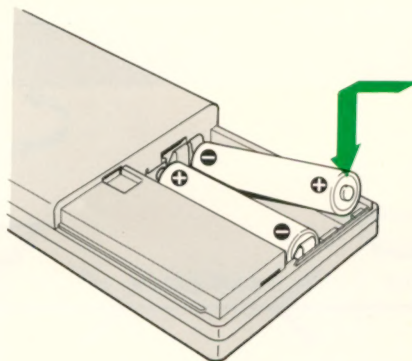
Battery installation

The Sony RM-703 Remote Commander operates on two supplied AA batteries (IEC designation R6).

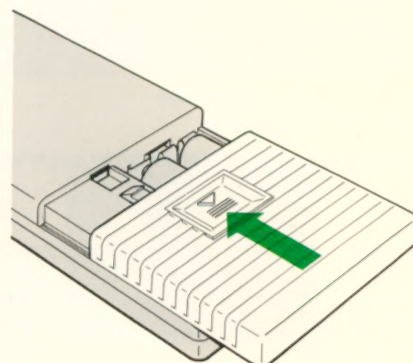
① Push and slide.



② Insert batteries observing the correct polarity.



③ Slide to close.



Function of buttons of the Remote Commander

Buttons and controls which have no equivalent on the TV

Transmitter

Point toward the remote control detector on the TV.

MUTING button

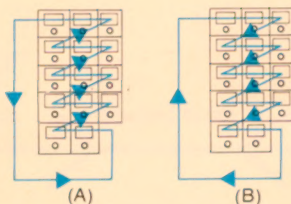
To mute the sound immediately, press this button. Sound muting will be released when the MUTING button is pressed again, the VOLUME ▲ button is pressed, or the TV is turned off and on again.

Indicator

This lamp indicates when the Remote Commander is operating. If the lamp does not light when any of the function buttons are pressed, battery replacement is required.

CHANNEL buttons

Channels are changed continuously in sequence. When the left button is pressed, the channels are changed as indicated in Fig. A, and as in Fig. B when the right button is pressed.



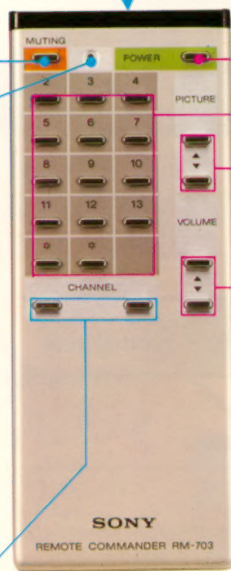
Buttons whose functions are the same as the TV buttons

POWER button

Channel-select buttons

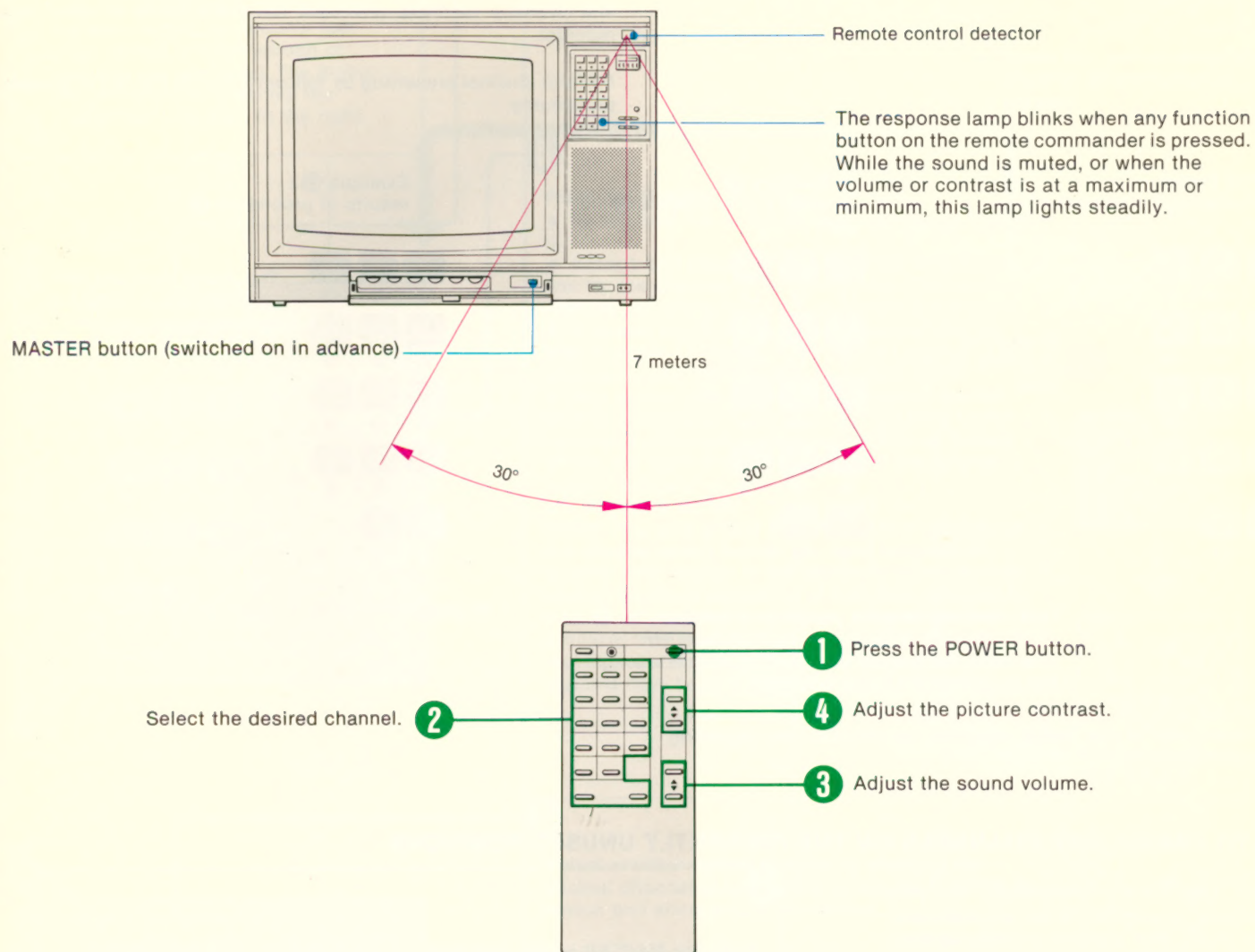
PICTURE buttons

VOLUME buttons



Operation of the Remote Commander

Once the MASTER button has been switched on, you can remotely control the TV with this commander up to 7 meters (23 feet) away from the TV and within the angle illustrated below.



Notes on the Remote Commander

- In normal operation, battery life is up to half a year. When the battery is exhausted, the Remote Commander will not operate the TV properly. In this case, replace the batteries with new ones.
- When the Commander is not used for a long period of time, remove the batteries to avoid damage from possible battery leakage.
- Keep the Commander away from extremely hot or humid places.
- Avoid dropping any foreign objects into the Commander case when replacing batteries.
- To avoid a malfunction, do not simultaneously depress two or more buttons.
- The RM-703 Commander may be used only with those Sony color TV models indicated in the operating instructions.

CHANNEL PRESETTING

As you receive your Sony TV from the dealer, it has been factory-preadjusted to receive VHF channels 2 through 13 by simply pressing the channel-select button having the number corresponding to the channel number.

Because of the geographical distribution of VHF stations, there will probably be some positions in the 2–13 range that will not provide reception at your location, with the result that several of these positions will be unusable for the time being. In addition, you will probably wish to receive several of the locally available UHF channels, and possibly to make provision for cable TV or a video tape recorder.

Perform channel presetting by following one of the two suggested procedures.

factory preset
(VHF channels 2 through 13)



position of
channels to be
reset

Example A:
results of procedure A



UHF channels may be preset on these two positions, or if there are more than two UHF channels, the presently unused positions among the positions 2–13 may be used.

- To use your TV set with a cable television system, contact a representative of the cable company for instructions regarding channel selection.

Example B:
results of procedure B

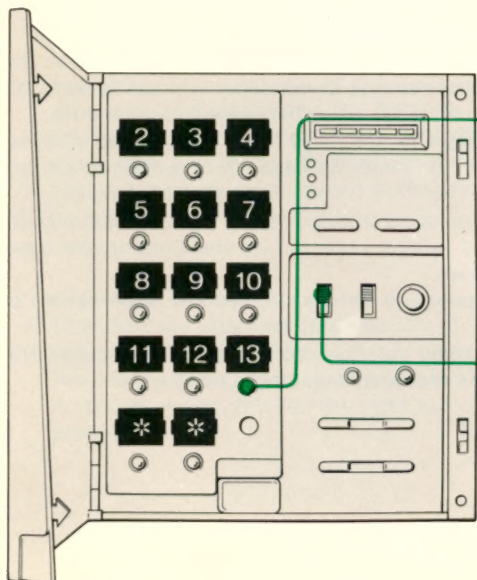


The active VHF and UHF channels are arranged in numerical sequence or your desired sequence.

To preset VTR, refer to page 14.

A TO PRESET UHF CHANNELS ON THE PRESENTLY UNUSED POSITIONS

From the local newspaper, or your neighbors, or another TV set, you can determine which UHF stations provide satisfactory reception in your locality.



1

Press the **MASTER** button and then press the **POWER** button.



2

Press the channel-select button 13.



Channel 13 (If it is inactive in your area, snow will appear.)

3

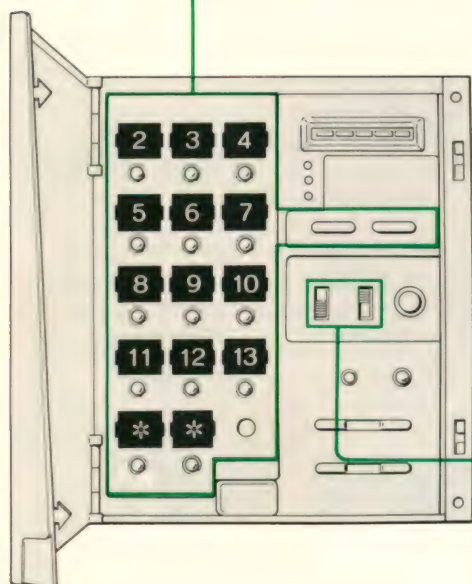
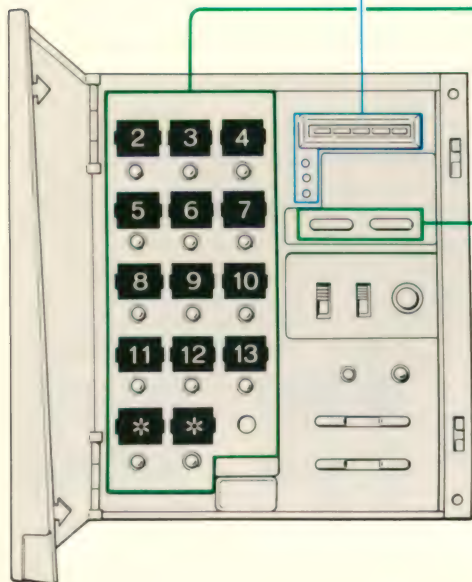
Set the **CHANNEL SET** switch to **ON**.



Same channel 13

Band indicator lamps

With the POWER switch pressed, one of the band indicator lamps illuminates to indicate in which band the presetting is taking place. The volume/picture indicator just above shows to what portion of the band you are tuned. The higher the frequency (or channel), the greater the deflection to the right.



4

Press the channel-select button that you wish to preset to receive a UHF station.



Same channel 13 when any channel select button is pressed.

5

Press the TUNING ► button.

- Do not hold the button in, just press it momentarily.
- Allow 1 or 2 seconds for the picture to stabilize and for the channel to be memorized. (The channel memory set at the factory is automatically erased.)
- In strong signal areas, tuning may sometimes stop between channels. If the desired station is not received, press the TUNING ► button again.
- Repeat this step as required until your desired station appears on the screen. For locating lower numbered channels, press the TUNING ◀ button.
- Use the band indicator lamps and the volume/picture indicator as guides.

STOP! (READ NOTE)

NOTE: You have preset the desired UHF station on the channel-select button you have selected. If another UHF station is not available or you do not wish to continue presetting at this time, proceed to step 7. If you wish to continue presetting other available UHF stations, proceed to step 6 and repeat presetting procedure until all desired UHF stations have been preselected.



UHF channel you have preset.

6

Select another vacant channel by pressing the desired channel-select button: press the TUNING ► button and allow picture to stabilize.

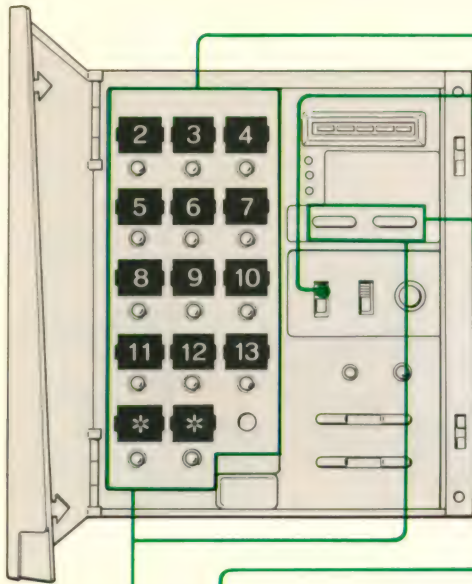


7

Set the CHANNEL SET switch to OFF and make sure the AFT switch set to ON.

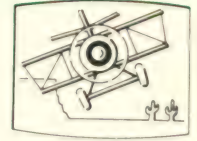
B TO ARRANGE THE ACTIVE VHF AND UHF CHANNELS IN NUMERICAL SEQUENCE OR YOUR DESIRED SEQUENCE

Any position can be set to any frequency from below channel 2 to the highest UHF TV frequency.



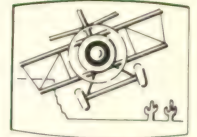
1

Press the MASTER button and then press the POWER button.



2

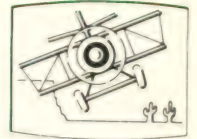
Set the CHANNEL SET switch to ON.



3

Press the channel-select button to be preset first.

The channels may be preset in any order. However, it is more convenient to start with the lowest channel number and proceed to the highest channel number when channels are placed in ascending numerical order.



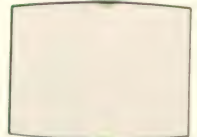
Same station as above regardless of the factory-preset channel on the selected button

4

Press the TUNING ► or the TUNING ◀ button.

► : for higher numbered channels
◀ : for lower numbered channels

- Do not hold the button in, just press it momentarily.
- Allow 1 or 2 seconds for the picture to stabilize and for the channel to be memorized (the channel memory set at the factory on the depressed channel-select button is automatically erased).
- If tuning stops between channels and a station is not received (this may sometimes occur in strong signal areas), press the TUNING button again.
- Repeat this step as required until your desired station appears on the screen.
- Use the band indicator lamps and the volume/picture indicator as guides. (Refer to page 11.)



Desired station

5

Press the next channel-select button to be preset, press the TUNING ► button or TUNING ◀ button, and allow picture to stabilize.

Repeat step 5 until all desired stations have been preset.

Same station as above



Desired station

6

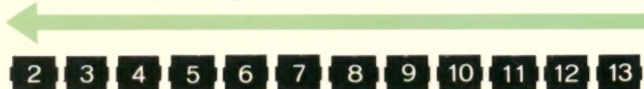
Set the CHANNEL SET switch to OFF and make sure that the AFT switch is set to ON.

Use of the CHANNEL CLEAR button

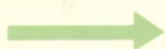
To tune in low-numbered VHF channels quickly

Before tuning in the desired station, you may use the CHANNEL CLEAR button to erase any memory on the depressed channel-select button, and to position its tuning to a frequency below channel 2. Then use the TUNING ► button to locate your desired station.

Result of pressing the CHANNEL CLEAR button

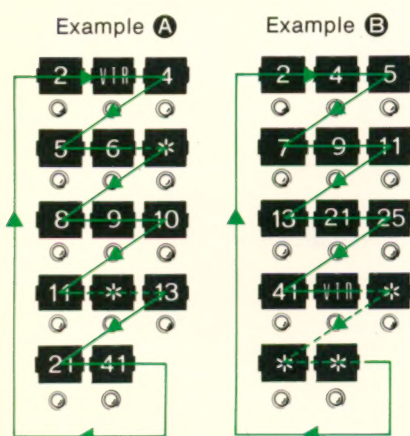


Start tuning from below channel 2 with the TUNING ► button.



To skip undesired positions during remote control operation

Press the channel-select button to be skipped (in our example, marked with an asterisk) and then the CHANNEL CLEAR button to erase any memory. You can reach the desired channel more quickly by using the skip function.



These buttons will be skipped when using the CHANNEL buttons on the Remote Commander.

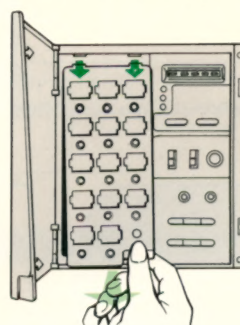
The CHANNEL CLEAR button only works while the CHANNEL SET switch is set to ON.

To replace the number segments

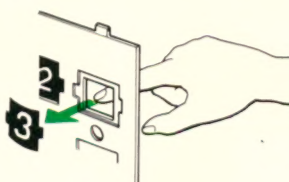
① Open the front-compartment lid.



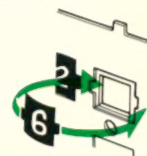
② Remove the channel indicating sheets.



③ Press any incorrect segment out from the rear.



④ Insert the correct number segments.



An asterisk (*) segment may be used to indicate an inactive channel.

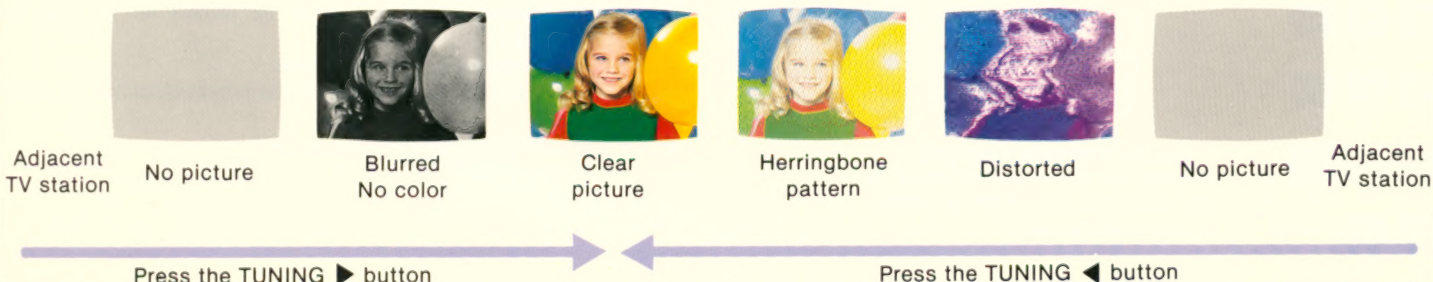
⑤ Replace the sheets in the original positions.

To fine-tune the channel manually

In case of extreme interference, or of an extremely weak station, adjust the fine tuning manually as follows.

Check that the CHANNEL SET switch is set to OFF, set the AFT switch to OFF and keep the TUNING ► or ◀ button depressed until a clear picture is obtained. Refer to the following chart.

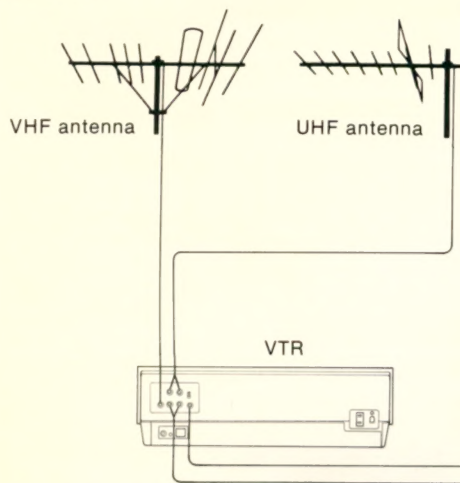
After the adjustment is completed, close the presetting compartment lid with the AFT switch at OFF.



VIEWING VTR PLAYBACK

To view the playback picture from a Sony Betamax videocassette recorder (or other VTR) equipped with an rf output terminal.

connection

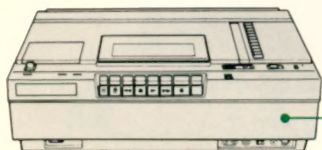


- 1 Connect a suitable VHF and UHF or combination antenna to the recorder.

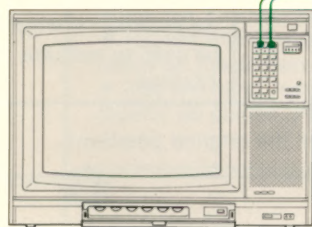
- 2 Connect the rf output of the recorder to the VHF antenna terminal of the TV, and the UHF OUT terminals of the recorder to the UHF terminals of the TV.

For details, refer to the instructions furnished with the recorder.

Operation



The signal from the recorder will be fed to the TV.



Adjusting the recorder

- 1 Set the rf unit channel selector to channel 3 or 4 whichever channel is not active in your area.
- 2 Set the recorder to the playback mode.
(If you do not have a pre-recorded tape, set the TV/VTR selector to VTR and select an active channel with its channel-select button on the recorder.)

Adjusting the TV

- 3 At the factory, the channel-select button marked 3 is preadjusted to VHF channel 3 and the one marked 4 to VHF channel 4. Press the button corresponding to the setting of the rf unit built into the recorder. A playback picture will appear.



If you have already reset the channel as described on page 12, any other unused channel-select button may be used.

To preset, proceed as follows.

- 1 Set the CHANNEL SET switch to ON.
- 2 Set the channel-select button to be preset for viewing the playback picture.
- 3 Press the CHANNEL CLEAR button.
- 4 Press the TUNING ► button until the playback picture is clearly turned in.
- 5 Set the CHANNEL SET switch to OFF.

EXTERNAL ANTENNA CONNECTION

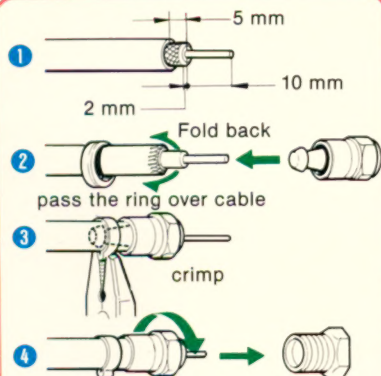
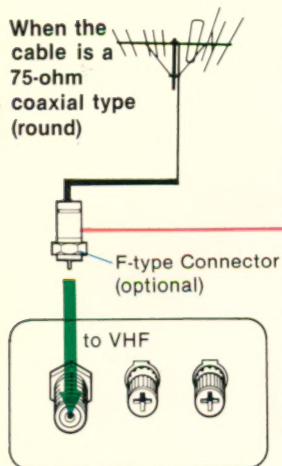
If your local signal is strong, an indoor antenna may be sufficient to obtain a clear picture.

The use of an external antenna is recommended especially in difficult reception areas (inside steel-frame buildings, in mountainous areas, or at great distances from the transmitter).

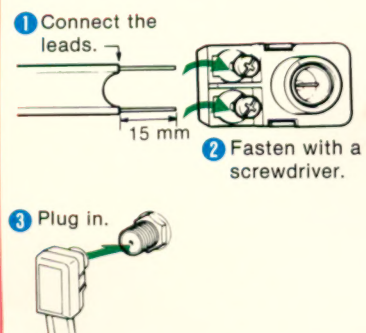
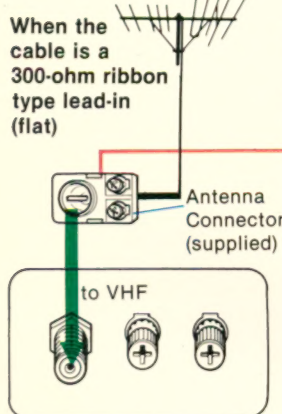
VHF antenna

Pull out the antenna connector from the VHF antenna terminal, thus disconnecting the VHF telescopic dipole antenna. Use the antenna connector for 300-ohm ribbon type lead-in connection.

When the cable is a 75-ohm coaxial type (round)

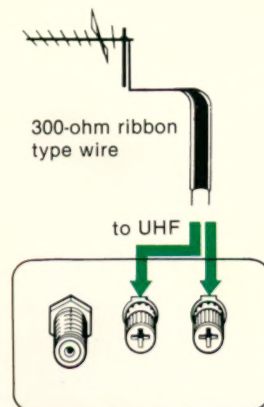


When the cable is a 300-ohm ribbon type lead-in (flat)



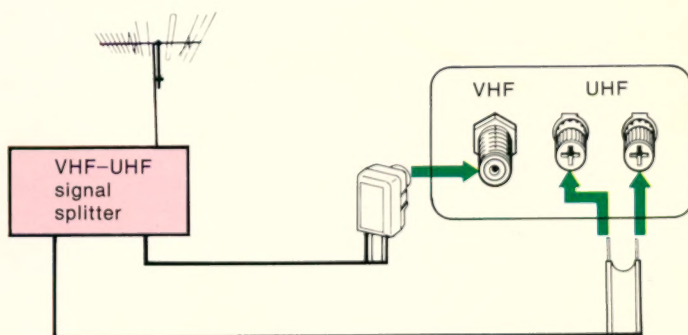
UHF antenna

Loosen the screws on the UHF antenna terminals, pull out the lugs of the UHF loop antenna.




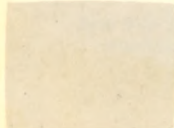






Combination VHF/UHF antenna

Most combination antennas already have a signal splitter. If you need a splitter or a complete antenna system, see your Sony dealer or a qualified technician.



CHECKING THE SET BY YOURSELF

Many apparent malfunctions may be caused by slight misadjustments of the regular controls or some other equally simple cause. If any difficulty arises in the operation of your set, first check through this illustrated list of symptoms and corrections. Should the difficulty persist, unplug the set and contact your Sony dealer.

SYMPTOM	CORRECTION
 <p>no picture (screen not lit), no sound</p>	<ul style="list-style-type: none"> ● Plug the set into a working outlet. ● Press the MASTER and POWER buttons.
 <p>no picture (screen not lit), but good sound</p>	<ul style="list-style-type: none"> ● Turn up the BRIGHT control or press the PICTURE ▲ button.
 <p>good picture but no sound</p>	<ul style="list-style-type: none"> ● Depress the VOLUME ▲ button. ● Check that the earphone is disconnected from the earphone [•] jack.
 <p>no picture, no sound, but snow and noise only</p>	<ul style="list-style-type: none"> ● Adjust the indoor antenna. ● Connect the antenna properly. ● Check the outdoor antenna.
 <p>no color</p>	<ul style="list-style-type: none"> ● Check that the AUTO and AFT switches are set to ON. ● Check that the COLOR control is not turned fully counterclockwise.
 <p>herringbone pattern, stripes, no color, no picture, too indistinct, etc.</p>	<ul style="list-style-type: none"> ● Set the AFT switch to OFF and adjust the fine tuning with TUNING ► or ◀ button.
 <p>dotted lines or stripes</p>	<ul style="list-style-type: none"> ● Often caused by interference from autos, neon signs, hair dryers, electric razors, etc. Try adjusting the antenna for minimum interference.
 <p>double images or "ghosts"</p>	<ul style="list-style-type: none"> ● Readjust the indoor antenna. Reflections from nearby mountains or buildings often cause this problem. In such cases, a highly directional outdoor antenna may improve the picture.

SPECIFICATIONS

Television system	American TV standards
Channel coverage	VHF channels 2-13 } a total of up to 14 UHF channels 14-83 } preselected channels
Picture tube	Trinitron tube
KV-1546R	15-inch picture measured diagonally, 90-degree deflection
KV-1746R	17-inch picture measured diagonally, 90-degree deflection
KV-1946R	19-inch picture measured diagonally, 100-degree deflection
Antenna	VHF telescopic dipole antenna UHF loop antenna 75-ohm external antenna terminal for VHF 300-ohm external antenna terminals for UHF
Speaker	10 cm (4 inches) dia.
Power requirements	120 V ac, 60 Hz
Power consumption	
KV-1546R	105 W (max) 71 W (average) 2.5 W (in standby condition)
KV-1746R	110 W (max) 73 W (average) 2.5 W (in standby condition)
KV-1946R	120 W (max) 78 W (average) 2.5 W (in standby condition)
Dimensions	
KV-1546R	approx. 553 × 404 × 431 mm (w/h/d) (21 3/4 × 15 7/8 × 17 inches)
KV-1746R	approx. 623 × 456 × 472 mm (w/h/d) (24 1/2 × 18 × 18 5/8 inches)
KV-1946R	approx. 673 × 488 × 482 mm (w/h/d) (26 1/2 × 19 1/4 × 19 inches)
Weight:	
KV-1546R	approx. 18 kg (39 lbs 11 oz)
KV-1746R	approx. 24.2 kg (53 lbs 6 oz)
KV-1946R	approx. 28.8 kg (63 lbs 8 oz)
Accessories supplied	Channel number segments Remote Commander RM-703 Earphone
Remote Commander RM-703	
Remote control system	Infrared control
Power requirements	3V dc (IEC Battery Designation R6)
Dimensions	Approx. 60 × 20 × 150 mm (w/h/d) (2 3/8 × 7/8 × 6 inches)
Weight	140 g (4.9 oz)
Accessories supplied	Battery size "AA" 2 pcs.

Design and specifications are subject to change without notice.